SYNOPSIS ON THE TOPIC

Renewable Energy sources

Policies, technologies and practices that relate to the adoption and economics of non-fossil fuel energy generation, including wind, solar, hydro and other renewable methods for energy generation.

On the Roscongress Information and Analytical System on the chosen topic you will find:

<table>
<thead>
<tr>
<th>Analytics</th>
<th>Events</th>
<th>Speakers and experts</th>
<th>Related topics</th>
</tr>
</thead>
<tbody>
<tr>
<td>4 analytical materials</td>
<td>38 sessions</td>
<td>296 speakers</td>
<td>35 topics</td>
</tr>
</tbody>
</table>

Latest publications in block «Analytics»

**World Energy Issues Monitor 2020: Decoding New Signals of Change**

Drawing on insights from leading industry experts, the report by the World Energy Council (WEC) looks at key issues and action priorities of the energy industry in 2020.

Read more
Oil and Gas Trends 2018–19: Strategy shaped by volatility

This publication by Strategy&, a global strategy consulting firm and part of the PwC network, offers an analysis of the current state of the oil and gas industry after several years of oversupply and gives a short-term forecast about industry trends.

The rise of renewables and energy transition: what adaptation strategy for oil companies and oil-exporting countries?

This publication by the Oxford Institute for Energy Studies explores challenges faced by oil companies and oil-exporting countries. A key issue facing oil companies and oil-exporting countries is how they should now position themselves and how best to be part of the renewables ‘revolution’.
KEY CONCLUSIONS

Russia and China are invested in more intensive cooperation in electric energy

Historically China is our strategic partner not just in developing strategic export relations, but in modern construction and designing our production facilities, as well as providing those facilities with state-of-the-art equipment — Anna Tsivileva, Chairman of the Board of Directors, Kolmar Group.

We did a profound study of the Russian market, and we strive to take part in developing the Russian electric energy market and building the infrastructure — Li Yanming, Deputy General Manager, PowerChina.

Cooperation in the energy sector is an important part of the Russia–China collaboration. We work together under certain conditions and can ensure development of the global electric energy industry — Jiang Yi, President, SPIC.

Read more →
Moderator

Valery Salygin
Director, International Energy Policy and Diplomacy Institute of Moscow State Institute of International Relations under the Ministry of Foreign Affairs of Russia (MIEP MGIMO)

KEY CONCLUSIONS

Global electric energy industry is going through a major transformation

International Energy Agency released an industry development forecast until the year 2070. It states that the main revolution in the energy sector is going to come from sustainable electric energy and digitalization, or, in other words, a digital revolution. Another important trend is a green revolution that could transform the entire energy infrastructure. Transformation of energy is happening as we speak, and we can see the world moving towards clean energy – Valery Salygin, Director, International Energy Policy and Diplomacy Institute of Moscow State Institute of International Relations under the Ministry of Foreign Affairs of Russia (MIEP MGIMO).

The share of renewable energy sources grows

According to BP Energy Outlook, one of the main trends for 2030–2040s will be redistribution of shares in the hydrocarbon energy sector. The share of energy made with oil and coal is going down, whereas the share of electricity produced with natural gas is going up. The decrease in oil and coal consumption is compensated by renewable energy – Yuriy Manevich, Deputy Minister of Energy of the Russian Federation.

Renewable energy sources are the most rapidly growing segment of the modern energy market. Over just 30 years the volume of renewable energy grew 13 times. <...> Currently, wind turbines are being designed that would put out 2 to 4 times more energy than the existing ones. <...> Renewable energy sources – wind and solar energy – became an absolute leader in growing capacities. Every fourth newly installed megawatt of output comes from solar energy, every fifth from the wind. <...> Hydrogen energy is looking promising. Some forecasts see hydrogen covering 18 percent of all energy demands by 2025 – Valery Salygin, Director, International Energy Policy and Diplomacy Institute of Moscow State Institute of International Relations under the Ministry of Foreign Affairs of Russia (MIEP MGIMO).

Between 2004 and 2018 coal consumption [in China, – Ed.] went down by 18.7%. <...> We are developing intellectual electric grid with 127 projects completed already. <...> By 2035, we are planning to create a special project called Internet +. It is an intellectual operating dispatch system that will adapt itself to
Energy systems of China and Russia are among the largest in the world

Cumulative available capacity of the Russian energy system is 250 gWh. Energy production volume stays about the same: 1 trillion 90 billion kWh. Russian energy systems work along those of 10 countries. <..<> It is 8 different time zones — Sergei Shmatko, Special Representative of the President of the Russian Federation on International Cooperation in the Electric Power Industry.

China is one of the world leaders in energy production and consumption, as well as in cumulative available capacity — Valery Salygin, Director, International Energy Policy and Diplomacy Institute of Moscow State Institute of International Relations under the Ministry of Foreign Affairs of Russia (MIEP MGIMO).

ST. PETERSBURG INTERNATIONAL ECONOMIC FORUM 2019

Global Energy Sector: Challenges and Opportunities

7 June 2019  10:00—11:15

Moderator

Annmarie Hordern
Reporter, Bloomberg TV

KEY CONCLUSIONS

Situation on the energy market has stabilized

The market was balanced in 2017–2018. The protracted crisis that we witnessed in 2014–2015 was quickly overcome, and in 2017–2018 investments began returning to the industry — Alexander Novak, Minister of Energy of the Russian Federation.

Efficiency of extraction is growing

Before the crisis of 2014, the amount of investments reached approximately USD 900 billion per year, but in 2015 this number saw a twofold decrease, to USD 500 billion. Despite the recovery of the market, the amount of investment regained no more than 10–15%. Today, we estimate that investments in the global industry are around USD 550–600 billion per year. Nevertheless, this low amount of investment allows to support the supply that basically exceeds the existing demand. This means that the efficiency of extraction has grown considerably. Low-margin projects are becoming more
marginal due to this growth — Alexander Novak, Minister of Energy of the Russian Federation.

We must maintain a good level of investment. We understand that prices should not be too low or too high — Robert Dudley, Group Chief Executive, BP.

Shale hydrocarbons are losing in the competition with traditional fuels

Dynamics of growth of shale hydrocarbons production surprised everyone. <...> But the growth that we witnessed last year and are witnessing this year is unlikely to be sustainable in the mid- and long-term. Another very important factor for shale hydrocarbons is quality. Most processing capacities worldwide are originally designed for oil of certain quality. This decreases demand for shale hydrocarbons, and that is why plans to build pipelines to supply American shale hydrocarbons to the global market look way less attractive — Khalid A. Al-Falih, Minister of Energy, Industry and Mineral Resources of the Kingdom of Saudi Arabia; Chairman of the Board of Directors, Saudi Arabian Oil Company (Saudi Aramco).

In reality, shale is overshadowed by economic factors — Ben van Beurden, Chief Executive Officer, Royal Dutch Shell Plc.
Speakers and experts

Люй Юньцян

Muhammad Naeem Malik
Director, SAARC Energy Centre

Sergey Kobzev
Deputy Chief Executive Officer - Chief Engineer, Russian Railways

Sergey Solovyev
President, Velikoy Severnoy Tropoy Foundation

Dmitriy Vodennikov
Deputy Chairman of the Management Board – Chief Engineer, FGC UES

Oleg Titov
Director of Power and Gas business unit, Siemens in Russia

Vladimir Sitnov
Senior Vice President, Sberbank

Vladimir Solovyov
Anchor, Russia TV Channel
Erlan Buzurbaev
Managing Director, Operator ROP

Full list of speakers and experts →
The list of topics related to the selected topic

<table>
<thead>
<tr>
<th>Topics</th>
<th>Analytics</th>
<th>Events</th>
<th>Speakers and experts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Power generation</td>
<td>4</td>
<td>31</td>
<td>242</td>
</tr>
<tr>
<td>&quot;Green&quot; technologies</td>
<td>2</td>
<td>16</td>
<td>174</td>
</tr>
<tr>
<td>Oil and Gas</td>
<td>3</td>
<td>8</td>
<td>39</td>
</tr>
<tr>
<td>Digitalization</td>
<td></td>
<td>7</td>
<td>78</td>
</tr>
<tr>
<td>Standards of living</td>
<td></td>
<td>4</td>
<td>41</td>
</tr>
<tr>
<td>Sustainable Development</td>
<td></td>
<td>4</td>
<td>27</td>
</tr>
<tr>
<td>Environment</td>
<td></td>
<td>3</td>
<td>41</td>
</tr>
<tr>
<td>Innovation infrastructure</td>
<td></td>
<td>3</td>
<td>37</td>
</tr>
<tr>
<td>Multilateral economic cooperation</td>
<td></td>
<td>3</td>
<td>36</td>
</tr>
<tr>
<td>Investment Climate</td>
<td></td>
<td>3</td>
<td>35</td>
</tr>
<tr>
<td>Waste utilization and reprocessing</td>
<td>2</td>
<td>36</td>
<td></td>
</tr>
<tr>
<td>Regional development</td>
<td>2</td>
<td>32</td>
<td></td>
</tr>
<tr>
<td>Export Promotion</td>
<td>2</td>
<td>28</td>
<td></td>
</tr>
<tr>
<td>Climate Change</td>
<td>2</td>
<td>26</td>
<td></td>
</tr>
<tr>
<td>Infrastructure-based development</td>
<td>2</td>
<td>20</td>
<td></td>
</tr>
</tbody>
</table>